ABSTRACT OF THE DISCLOSURE

A technique is provided for determining service intervals for devices, such as medical equipment. Data related to a device is collected and compared to data from a population of like devices. A service interval may be calculated based on the comparison. The data regarding the population of like devices may be raw quantitative or qualitative data or may be processed data, such as may be used to graph the reliability of the device as a function of some variable such as usage or age, i.e. a reliability curve. The data may representative of the device as a whole or one or more components of the device. Multiple service intervals may be generated for a single device by calculating a service interval for each data source, such as a component or subset of components, of the device. An optimal service interval may then be selected. In addition, the technique may be applied for selection of a service interval for more than one device.